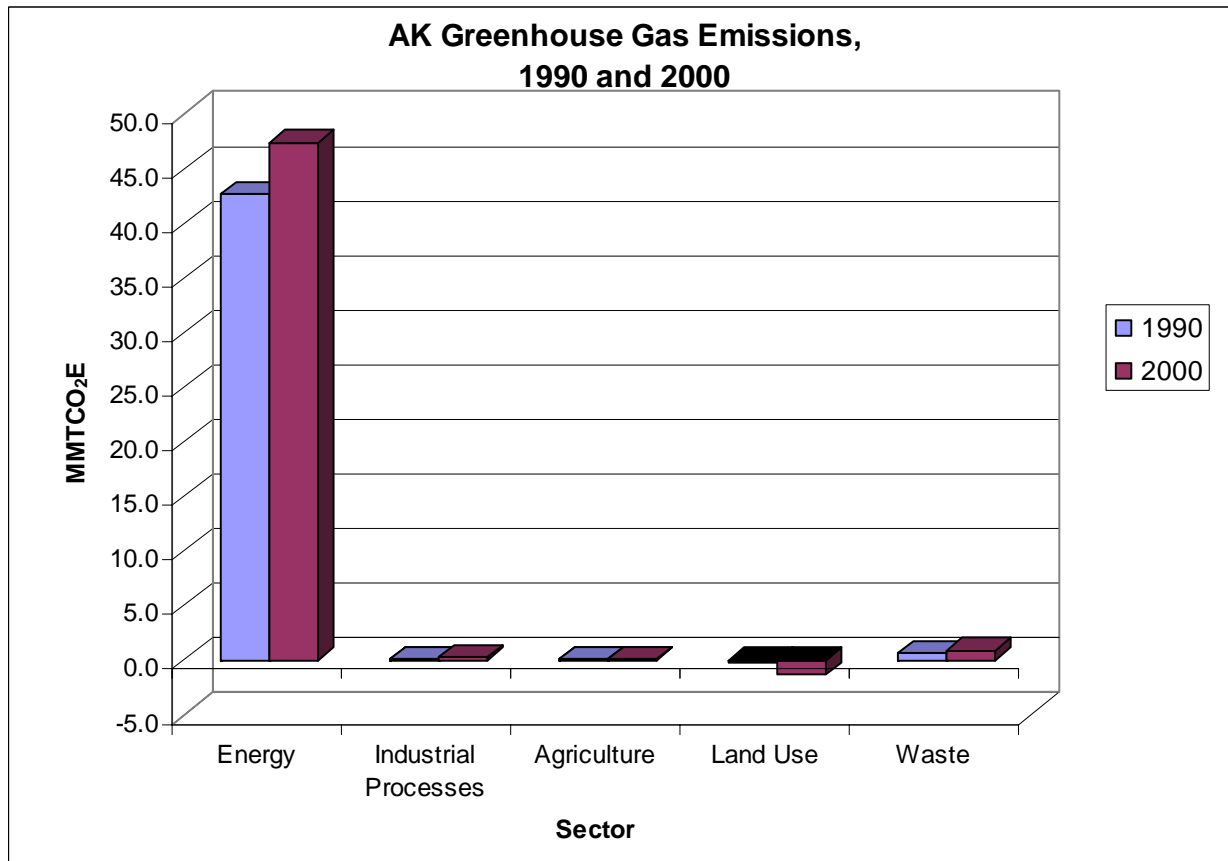


ALASKA GREENHOUSE GAS EMISSIONS AND SINKS INVENTORY: SUMMARY



The Alaska Department of Environmental Conservation, Division of Air Quality report, *Alaska Greenhouse Gas Inventory and Reference Case Projections, 1990 - 2020* provides a detailed inventory of sources and sinks of greenhouse gases in Alaska.¹

In 1990, Alaska emitted greenhouse gases in the amount of 43.0 million metric tons carbon dioxide equivalent (MMTCO₂E). In 2000, greenhouse gas emissions increased to 47.1 MMTCO₂E, an overall increase of 10% from 1990 to 2000. Emissions from energy use and waste both increased (by 11 percent and 50 percent respectively), and emissions from agriculture remained constant. Emissions from industrial processes increased from 0.05 MMTCO₂E to 0.2 MMTCO₂E, or 300 percent. Land Use (comprising forestry and land use) accounted for a small sink, which increased from -0.3 MMTCO₂E in 1990 to -1.4 MMTCO₂E in 2000.

¹ Historical GHG emission estimates (1990 through 2004) were estimated using a set of generally-accepted principles and guidelines for state greenhouse gas emission estimates, with adjustments to provide Alaska-specific data and inputs when it was possible to do so. Emissions from 2006 to 2020 were developed based on a compilation of various existing projections of electricity generation, fuel use, and other GHG-emitting activities, along with a set of transparent assumptions.

1990	CO ₂ (MMTCO ₂ E)	CH ₄ (MMTCO ₂ E)	N ₂ O (MMTCO ₂ E)	HFCs, PFCs, and SF ₆ (MMTCO ₂ E)	Total (MMTCO ₂ E)
Energy	*	*	*	*	42.6
Industrial Processes	*	*	*	*	0.1
Agriculture	*	*	*	*	0.1
Land Use	*	*	*	*	-0.3
Waste	*	*	*	*	0.6
Net Emissions	*	*	*	*	43.0

2000	CO ₂ (MMTCO ₂ E)	CH ₄ (MMTCO ₂ E)	N ₂ O (MMTCO ₂ E)	HFCs, PFCs, and SF ₆ (MMTCO ₂ E)	Total (MMTCO ₂ E)
Energy	*	*	*	*	47.3
Industrial Processes	*	*	*	*	0.2
Agriculture	*	*	*	*	0.1
Land Use	*	*	*	*	-1.4
Waste	*	*	*	*	0.9
Net Emissions	*	*	*	*	47.1

Note: Totals differ from those quoted in text due to independent rounding. All emissions are reported in million metric tons of carbon dioxide equivalent (MMTCO₂E).

* The Alaska state Inventory did not include emissions by gas; only aggregated totals by category were presented.

The majority of Alaska's emissions came from with the burning of fossil fuels, primarily for fuelling industrial facilities (42 percent of net emissions in 2000) and for transportation (36 percent in 2000). Other large sources were the fossil-fuel industry (7 percent in 2000), and fossil fuels consumed for electricity production (7 percent) and residential and commercial uses (9 percent).

Gross per capita emissions in Alaska were 79 MTCO₂E in 1990 and 77 MTCO₂E in 2000. These figures were above the national average, which was 25 MTCO₂E per capita in both 1990 and in 2000. The higher per capita emission rates in Alaska are driven by emissions from the fossil fuel industry and transportation sectors, which are much higher than the national average.